CAUSES OF PROJECT DELAY AND COST OVERRUN OF MEGA PROJECTS IN PENINSULAR MALAYSIA

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STUDENT'S DECLARATION

I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang or any other institutions.

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ABSTRAK

Isu atau permasalahan mengenai projek pembinaan yang tidak menepati anggaran masa serta anggaran kos yang ditetapkan adalah isu yang biasa dihadapi oleh organisasi dalam industri pembinaan projek khususnya dalam pembinaan projek-projek mega atau projek berskala besar. Isu ini cenderung untuk menjadi sebab dominan yang menyebabkan masalah dalam sesuatu projek pembinaan Kedua-dua isu ini secara amnya dianggap sebagai isu kompleks dan berisiko dalam pelaksanaan projek pembinaan mega. Selain itu, banyak kajian mengenai permasalahan ketidaktepatan masa dan kos dalam industri atau bidang pembinaan projek telah dilakukan sama ada di Malaysia mahupun negara-negara luar dan berdasarkan pemerhatian, didapati bahawa permasalahan ini merupakan masalah yang biasa berlaku khususnya di negara-negara membangun seperti Malaysia. Oleh itu, faktor-faktor yang berkemungkinan menyumbang ke arah masalah ketidaktepatan anggaran masa serta kos dalam pembinaan projek mega perlu serta penting untuk dikenalpasti dalam usaha bagi mengelakkan serta mengatasi permasalahan ketidaktepatan anggaran masa serta kos dalam pembinaan projek mega di Semenanjung Malaysia. Data yang diperolehi daripada kajian ini yang menggunakan Skala Likert, dianalisis menggunakan Indeks Penting Relatif (RII). Kajian mendapati bahawa tiga kedudukan tertinggi bagi punca berlakunya masalah ketidaktepatan anggaran masa dalam menjalankan pembinaan projek mega yang ditentukan oleh keseluruhan responden adalah kesilapan semasa pembinaan oleh kontraktor, kelewatan dalam pembayaran oleh pemaju dan masalah kewangan. Sementara itu, faktor bagi isu ketidaktepatan anggaran kos untuk projek mega pula mendapati bahawa tiga kedudukan tertinggi adalah dari segi pengurusan tapa iaitu kelewatan jadual projek, anggaran masa tidak tepat serta anggaran kos dan pemantauan yang tidak mencukupi.

ABSTRACT

Project delay and cost overrun are two most commonly issues happen which tend to cause troubles in any construction project, especially the mega construction project. These two issues are generally regarded as the most problematic, complex, and risky issues encountered in a mega construction project. Many studies in Malaysia and also from the other countries point out that the issue of project delay and cost overrun are most commonly happen in developing countries includes Malaysia. Therefore, the identification or establishment of the causes that will lead to project delay and cost overrun in megaprojects is necessary and vital in order to put an effort in avoiding or overcoming this problem. This is corresponds to the main objective of this study which is to study the causes of the project delay and cost overruns in megaprojects in Peninsular Malaysia. The data acquired from the survey used a Likert Scale and analysed using Relative Important Index (RII).The study found that the three highest ranking for the causes of project delay of megaprojects by overall respondents are mistakes during construction by contractors, delay in progress payment and financial difficulties. While the causes of cost overrun for megaprojects declaring the three highest ranking is from the aspect of site management which are schedule delay, inaccurate time and cost estimated and inadequate monitoring and controlling.

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LIST OF ABBREVIATIONS

KLIA	Kuala Lumpur International Airport
MRT	Mass Rapid Transit
SMART	The Stormwater Management And Road Tunnel
MARA	Majlis Amanah Rakyat
PKK	Pusat Khidmat Kontraktor
CIDB	Construction Industry Development Board
RII	Relative Important Index

CHAPTER 1

INTRODUCTION

1.1 Background Study

In recent years, Malaysia has gone through a rapid growth of economy. Following the growth of the country economy, infrastructure developments as well as the urbanization are both at the booming state. In other words, the Malaysian construction industry is one of the driving forces of Malaysian economic. Malaysia's construction industry plays an important role in generating wealth and improving the quality of life for Malaysians through the translation of government's socio-economic policies into social and economic infrastructure and buildings. Apart from that, the Malaysian construction industry also has other important role in Malaysia such as providing job opportunities for approximately 800,000 people.

In construction industry, it required much manpower to establish the industries such as labour, design team, developer and others. The construction industries also creating multiple affect to the other industries such as manufacturer, financial and others. Many industries will be involved to establish a construction. Each industry has their own responsibility. Despite a challenging 2017, it is clearly can be seen that the construction industry in Malaysia has experienced a steady growth, supported by on-going infrastructure projects. The private sector and local contractors continued to propel construction activity in the country. Even with a sluggish property market, more residential projects are commenced this year. This can be proven by a finding in internet which stated that the project value for new construction works in Malaysia depicts an increasing value which is from RM 140 billion in 2015 to RM 230 billion in 2016. This is followed by the amount of RM 170 billion in 2017 which shows a slight of decreasing trend.

According to (Hoai, Lee, & Lee, 2008) , there are many problems have arisen during the construction projects implementation. This includes two main concerns which are project delay and cost overruns. Along with delay and cost overruns, there are some frequently faced consequences. Like other countries, Malaysia also in the midst of facing a serious and worrisome issue of project delay and cost overrun in construction industry where only 46.8% of public sector project and 37.2% of private sector projects were completed within the stipulated budget.

Hence, this study is carried out to find the root causes of time delay and cost overruns arising during construction phase of megaprojects in Peninsular Malaysia. Causes of time and cost extensions can result from all phases of projects, works, and circumstance. However, major troubles usually thrive during construction phases.

1.2 Problem Statement

There are a lot of perspective from the researchers about the serious and worrisome issue of project delay and cost overrun in construction industry. For instance, citing from (Najjar, 2008), he stated that poor time and cost performance are critical issues facing by today's construction industry in Malaysia, due to construction companies failed to achieve project objective in the targeted time and targeted cost.

Other than that, the critical issues facing by Malaysia is due to lack of concern by project manager in the construction issues; and there are less of studied on the impact of the cost overrun factors to the project delay, lack of updated information about how cost overrun factors can bring impacts to the project delay in different stages (Ibrahim, Abdullah, Sohu, Nagapan, & Richard, 2010)

The statements above can be concluded as both cost overrun and project delay are issues that are directly can lead a project to failure. If the problems are untreated, it will bring anticipated and unexpected impact to the company as well as the construction industry (Mohamad, 2010). Consequently, both project manager as well as contractor should pay a serious attention to overcome it.

The construction of megaprojects in Malaysia is in their booming state since years ago. Megaprojects are projects that are extremely a large-scale investment project. It usually would cost more than USD 1 billion or RM 4 billion. However, there are still projects which cost less than RM 4 billion and still can be considered as mega, it depends on the context. Megaprojects usually will attract a lot of public attention as they usually give high impacts towards community, environment and budget. Some of the megaprojects in Peninsular Malaysia includes Kuala Lumpur International Airport (KLIA), Petronas Twin Tower, Mass Rapid Transit (MRT), Penang Bridge, Stormwater Management and Road Tunnel (SMART Tunnel) and East Coast Expressway.

Megaprojects basically need an extra care in the term of project development process. This is to decrease any possibility that might happen such that the optimism bias which is able to cause delays as well as cost overrun when expensive projects are built. Due to the complexity of a megaproject, it literally becomes a measurement of success. However, the construction of a megaproject often faces many sorts of problems and among the major problems could be the project delay and cost overrun. Seldom megaprojects are completed on time and on budget.

Referring to the Focus Malaysia article Issue 273 written by Joseph Wong, he discussed on the Stormwater Management and Road Tunnel (SMART Tunnel), one of Malaysia megaproject and he specifically emphasized about the cost overrun for the project. Abdullah (2010) stated that more than 90% of large MARA construction projects experienced delay since 1984. Endut et al. (2009) studied on time performance of megaprojects in Malaysia. The study found that only 18.2% of the public sector projects and 29.45% of private sector projects had 0% delays while the average percentage of time overrun for other projects was 49.71%. He also reported that more than 50% projects face cost overrun.

Accordingly, this study is attempted to highlight the causes of the project delay and cost overruns in the megaproject construction industry in Peninsular Malaysia and to investigate which party in the construction industry who plays the most impactful role to the issue. Hence, it can help all parties involved to understand the importance of cost and time in a project, alleviate financial and time related issues in the effort to make the megaprojects successful.

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